



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,284	11/23/1999	QINGHONG CAO	Cao 2-2-11-11-6	3630
46900 7590 12/08/2009 MENDELSON, DRUCKER, & ASSOCIATES, P.C. 1500 JOHN F. KENNEDY BLVD., SUITE 405 PHILADELPHIA, PA 19102			EXAMINER LY, NGHI H	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 12/08/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 4, 5, 30-34, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (JP07212829A) in view of Borland et al (US 6,556,965) and further in view of Young, III (US 5,694,467).

Regarding claim 1, Sato teaches a cordless telephone (see Title and Abstract), comprising: a remote handset (see Drawing handset 37), a base unit matched to the remote handset (see Drawing base unit 24), and an audio player integrated within at least one of the remote handset and the base unit (see Title, Abstract and Detailed Description).

Sato does not specifically disclose an MPEG audio integrated within at least one of the remote handset and the base unit.

Borland teaches an MPEG audio integrated within at least one of the remote handset and the base unit (see Abstract, column 5, lines 37-40, column 4, lines 7-21, "MP3", and column 4, lines 48-66, "MPEG" and "MP3", also see column 3, line 65 to column 4, line 7, "MPEG" and see column 5, lines 24-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Borland into the system of Sato in order to provide high quality audio signal (see Borland, Abstract).

The combination of Sato and Borland does not specifically disclose a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Young teaches a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see "*the present invention would operate identically with digital or other type telephones*", also see Abstract and column 2, lines 9-24, see "*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*", see column 4, lines 24-30, see "***so they can hear the telephone ring while listen to music***", also see column 5, lines 50-60, see "***a cordless***").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Young into the system of Sato and Borland in order to improve in sound headset systems and telephone headset systems (see Young, column 1, lines 7-9).

Regarding claim 2, the combination of Sato, Borland and Young teaches the MPEG audio player is integrated within the remote handset (see Sato, Title, Abstract and Detailed Description, and/or see Borland, column 5, lines 24-28).

Regarding claims 4 and 5, the combination of Sato, Borland and Young further teaches the MPEG audio player is an MP3 (see Borland, Abstract, "MP3", column 4, lines 7-21, "MP3").

Regarding claim 30, the combination of Sato, Borland and Young further teaches the base unit is adapted (i) to receive from a telephone line a telephone audio signal representing a telephone conversation and (ii) to transmit the telephone audio signal to said remote handset (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see "storage in portable systems" and column 4, lines 43-47, see "playback"), and said summer is further adapted to digitally sum the telephone audio signal representing the telephone conversation with the MPEG audio bit stream (see Young, see column 3, lines 18-21, column 4, lines 27-34, see "*the present invention would operate identically with digital or other type telephones*", also see Abstract and column 2, lines 9-24, see "*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*", see column 4, lines 24-30,

see “***so they can hear the telephone ring while listen to music***”, also see column 5, lines 50-60, see “a ***cordless***”).

Regarding claim 31, the combination of Sato, Borland and Young further teaches the telephone audio signal is monaural, the MPEG audio bit stream has a plurality of stereo channels (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”), and the summer is adapted to digitally sum the monaural telephone audio signal into each of the plurality of stereo channels of the MPEG audio bit stream, such that a sense of balance in the user is improved (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”, see column 4, lines 24-30, see “***so they can hear the telephone ring while listen to music***”, also see column 5, lines 50-60, see “a ***cordless***”).

Regarding claim 32, the combination of Sato, Borland and Young further teaches both said MPEG audio player and said summer are jointly implemented as a single digital signal processor adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient

Art Unit: 2617

noise, and a ring tone from the phone”, see column 4, lines 24-30, see “so they can hear the telephone ring while listen to music”, also see column 5, lines 50-60, see “a cordless”).

Regarding claim 33, the combination of Sato, Borland and Young further teaches the digital signal processor is adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream by: (i) decoding the MPEG audio bit stream to produce a digital reconstructed audio signal, and (ii) digitally summing the digital reconstructed audio signal with the digitally synthesized ring tone to produce a digital summed audio signal (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”, see column 4, lines 24-30, see “so they can hear the telephone ring while listen to music”, also see column 5, lines 50-60, see “a cordless”).

Regarding claim 34, the combination of Sato, Borland and Young further teaches the cordless telephone further comprises: a digital-to-analog converter connected to said digital signal processor to receive the digital summed audio signal and to produce an analog audio signal suitable for outputting to the user (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music

Art Unit: 2617

Source, a mic detecting ambient noise, and a ring tone from the phone", see column 4, lines 24-30, see "**so they can hear the telephone ring while listen to music**", also see column 5, lines 50-60, see "**a cordless**").

Regarding claim 38, the combination of Sato, Borland and Young further teaches the step of digitally summing the digitally synthesized ring tone with the MPEG audio bit stream comprises: the digital signal processor decoding the MPEG audio bit stream to produce a digital reconstructed audio signal, and the digital signal processor digitally summing the digital reconstructed audio signal with the digitally synthesized ring tone to produce a digital summed audio signal (see Young, see column 3, lines 18-21, column 4, lines 27-34, see "*the present invention would operate identically with digital or other type telephones*", also see Abstract and column 2, lines 9-24, see "*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*", see column 4, lines 24-30, see "**so they can hear the telephone ring while listen to music**", also see column 5, lines 50-60, see "**a cordless**").

Regarding claim 39, the combination of Sato, Borland and Young further teaches digital-to-analog converting the digital summed audio signal to produce an analog audio signal suitable for outputting to the user (see Young, see column 3, lines 18-21, column 4, lines 27-34, see "*the present invention would operate identically with digital or other type telephones*", also see Abstract and column 2, lines 9-24, see "*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*", see column 4, lines 24-30, see "**so they can**

hear the telephone ring while listen to music", also see column 5, lines 50-60, see "***a cordless***").

4. Claims 9, 10, 19, 20 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (JP07212829A) in view of Borland et al (US 6,556,965) and further in view of Young, III (US 5,694,467) and Tuoriniemi et al (US 5,978,689).

Regarding claims 9 and 19, Sato teaches a method of integrating an MPEG audio player in a cordless telephone (see Title and Abstract) comprising: playing of the pre-loaded music from the remote handset of a cordless telephone (see Title, Abstract and Detailed Description), connecting a base unit of the cordless telephone to a public switch telephone network (the base unit of cordless telephone of Sato inherently connect to a public switch telephone network).

Sato does not specifically disclose a method of integrating an MPEG audio player in a cordless telephone and playing of the pre-loaded MP3.

Borland teaches a method of integrating an MPEG audio player in a cordless telephone and playing of the pre-loaded MP3 (see column 5, lines 24-28 and column 4, lines 27-33, see "storage in portable systems" and column 4, lines 43-47, see "playback").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Borland into the system of Sato in order to provide high quality audio signal (see Borland, Abstract).

The combination of Sato and Borland does not specifically disclose digitally summing a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Young teaches digitally summing a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see “*the present invention would operate identically with digital or other type telephones*”, also see Abstract and column 2, lines 9-24, see “*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*”, see column 4, lines 24-30, see “***so they can hear the telephone ring while listen to music***”, also see column 5, lines 50-60, see “***a cordless***”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Young into the system of Sato, and Borland in order to improve in sound headset systems and telephone headset systems (see Young, column 1, lines 7-9).

The combination of Sato, Borland and Young does not specifically disclose muting the playing of the pre-loaded music when the remote handset is active in a current telephone call.

Tuoriniemi teaches muting the playing of the pre-loaded music (see column 9, lines 17-20) when the remote handset is active in a current telephone call (see column 7, lines 49-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Tuoriniemi into the system of Sato, Borland and Young so that the user won't miss the telephone call while enjoy listening to music.

Regarding claims 10 and 20, the combination of Sato, Borland, Young and Tuoriniemi further teaches muting pauses the playing of the pre-loaded music (see Tuoriniemi, column 9, lines 17-20).

Regarding claim 35, the combination of Sato, Borland, Young and Tuoriniemi further teaches the base unit receiving from the PSTN a telephone audio signal representing a conversation (see Sato, Title, Abstract and Detailed Description and the base unit of cordless telephone of Sato inherently connect to a public switch telephone network), the base unit transmitting the telephone audio signal to the remote handset, and the remote handset digitally summing the telephone audio signal representing the telephone conversation with the MPEG audio bit stream (see Young, see column 3, lines 18-21, column 4, lines 27-34, see *"the present invention would operate identically with digital or other type telephones"*, also see Abstract and column 2, lines 9-24, see *"a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone"*, see column 4, lines 24-30, see *"so they can hear the telephone ring while listen to music"*, also see column 5, lines 50-60, see *"a **cordless**"*).

Regarding claim 36, the combination of Sato, Borland, Young and Tuoriniemi further teaches the telephone audio signal is monaural, and the MPEG audio bit stream

Art Unit: 2617

has a plurality of stereo channels (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”), and the step of digitally summing the telephone audio signal with the MPEG audio bit stream comprises digitally summing the monaural telephone audio signal into each of the plurality of stereo channels of the MPEG audio bit stream, such that a sense of balance in the user is improved (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “*the present invention would operate identically with digital or other type telephones*”, also see Abstract and column 2, lines 9-24, see “*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*”, see column 4, lines 24-30, see “**so they can hear the telephone ring while listen to music**”, also see column 5, lines 50-60, see “**a cordless**”).

Regarding claim 37, the combination of Sato, Borland, Young and Tuoriniemi further teaches the steps of (i) playing pre-loaded MP3 music from the remote handset of said cordless telephone (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”) and (ii) digitally summing the telephone audio signal with the MPEG audio bit stream are performed by a single digital signal processor (see Young, see column 3, lines 18-21, column 4, lines 27-34, see “*the present invention would operate identically with digital or other type telephones*”, also see Abstract and column 2, lines 9-24, see “*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*”, see column 4, lines 24-30, see “**so they can**

hear the telephone ring while listen to music", also see column 5, lines 50-60, see "***a cordless***").

Response to Arguments

5. Applicant's arguments filed 08/10/09 have been fully considered but they are not persuasive.

On page 6 of applicant's remarks, applicant argues that one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the teaching of Borland into the system of Sato.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to do so found in the references themselves, in order to provide high quality audio signal (see Borland, Abstract).

On page 7 of applicant's remarks, applicant argues that "*The Applicants disagree, however, that these cited portions of Young teach a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream*".

In response, applicant argues the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, the newly added limitations (filed 07/14/08 and 03/02/09) recite “**a summer** adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music”.

The applicant's specification (page 13, lines 6-11), however, merely discloses “an audible ring may be **included** in the output audio bit stream music so that a user listening to the MP3 music may hear the telephone ringing along with their music. To this extent, a synthesized tone may be summed with the played MP3 digital audio bit stream music at a level which is preferably distinctly audible to the user”.

In this case, the specification discloses: a synthesized tone [NOT the ring] may be summed with the played MP3 digital audio bit stream music.

The specification fails to further disclose: **a summer** adapted to **digitally sum** a **digitally synthesized ring tone** with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Therefore, Young indeed teaches a summer adapted to digitally sum (or **include**) a digitally synthesized ring tone with an audio bit stream (see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient

Art Unit: 2617

*noise, and a ring tone from the phone”, see column 4, lines 24-30, see “**so they can hear the telephone ring while listen to music**”, also see column 5, lines 50-60, see “a cordless”).*

On page 8 of applicant’s remarks, applicant argues “Young provides no teaching or suggestion whatsoever regarding a synthesized ring tone.

In response, applicant’s specification fails to disclose the newly added “a synthesized ring tone”, and the applicant’s specification fails to further disclose: a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Therefore, Young indeed teaches a summer adapted to digitally sum (or **include**) a digitally synthesized ring tone with an audio bit stream (see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”, see column 4, lines 24-30, see “**so they can hear the telephone ring while listen to music**”, also see column 5, lines 50-60, see “a cordless”).

On page 8 of applicant’s remarks, applicant argues that “Young provides no teaching or suggestion whatsoever regarding an MPEG audio bit stream. As such, Young neither teaches nor even suggests “a summer to digitally sum a digitally synthesized ring tone with an MPEG audio bit stream,” as recited by claim 1.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Borland (not Young) teaches an MPEG audio bit stream (see Abstract, column 5, lines 37-40, column 4, lines 7-21, "MP3", and column 4, lines 48-66, "MPEG" and "MP3", also see column 3, line 65 to column 4, line 7, "MPEG" and see column 5, lines 24-28), and Young indeed teaches a summer adapted to digitally sum (or **include**) a digitally synthesized ring tone with an audio bit stream (see column 3, lines 18-21, column 4, lines 27-34, see "*the present invention would operate identically with digital or other type telephones*", also see Abstract and column 2, lines 9-24, see "*a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone*", see column 4, lines 24-30, see "***so they can hear the telephone ring while listen to music***", also see column 5, lines 50-60, see "***a cordless***"), and the combination of Sato, Borland and Young indeed teaches applicant's claims. In addition, applicant's attention is directed to the teaching of Sato, Borland and Young above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGHI H. LY whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2617

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617